

Lab #1

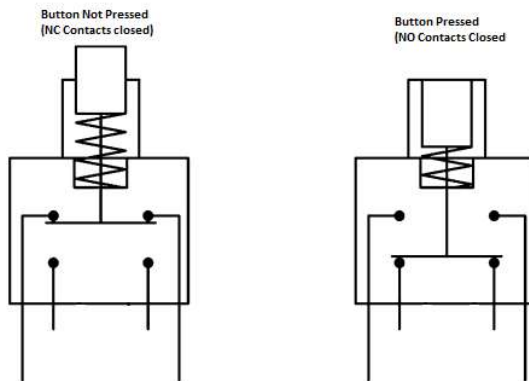
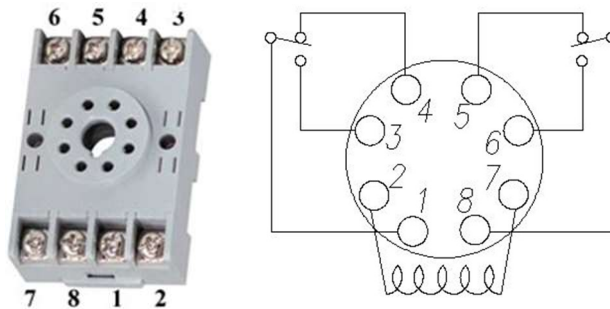
TECH 3821

Relay Start Stop Pushbutton Station

Objective: Gain an understanding of relays and simple start stop pushbutton stations.

Materials: One relay (12-24 V DC coil, DPDT at minimum). 2 Industrial Push Buttons, One Light.

Required Diagrams:



Procedure:

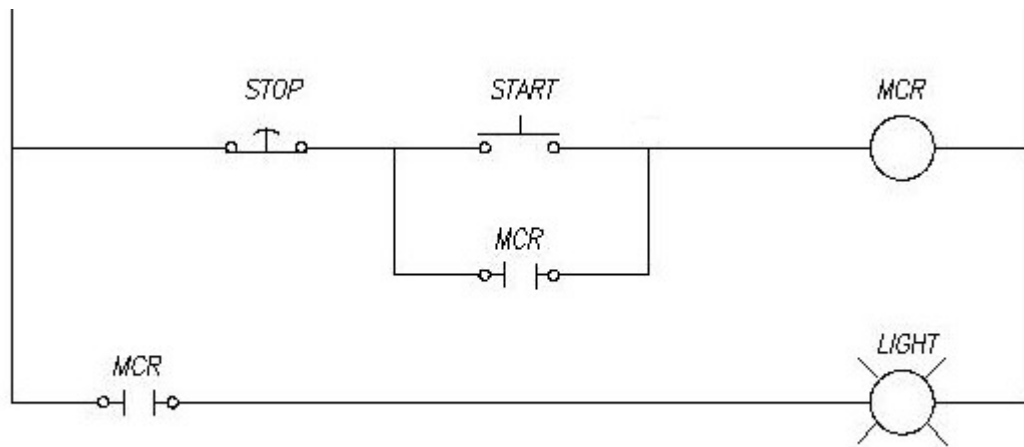
1. Record the following:

Relay Model Number: _____

Coil Voltage: _____

Contact Ratings: _____

- Connect the Relay coil to a variable power supply. Starting at zero volts, slowly increase the voltage until the relay energizes (ie you hear the click indicating the relay close the contact). Record this voltage: _____ and current _____. These values are known as the "PULL IN" voltage and current.
- With the relay still energized, start decreasing the voltage until the relay opens (indicated by the click of the relay). Record the voltage _____ and current _____. These values are known as the "DROP OUT" current and voltage.
- Place terminal numbers on the following ladder diagram.



- Wire the circuit.
- Demonstrate to the instructor (obtain signature)
- In your own words, explain the operation of the circuit in the following order: When the Start is depressed, Running (how does it remain running when the start button is released), when the stop is depressed.

[use back of sheet if you run out of room]

- Clean up your work area, but away all equipment and parts and turn in the lab.